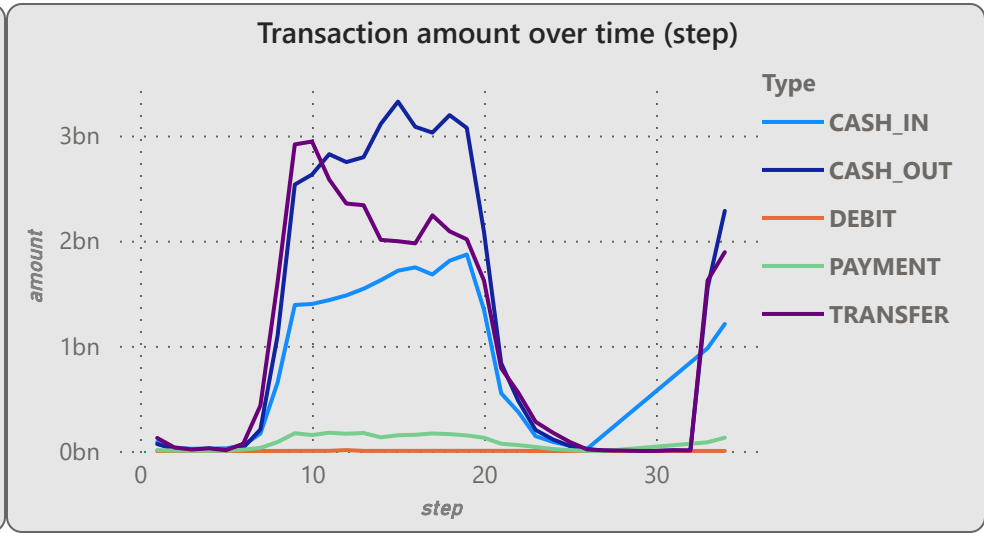
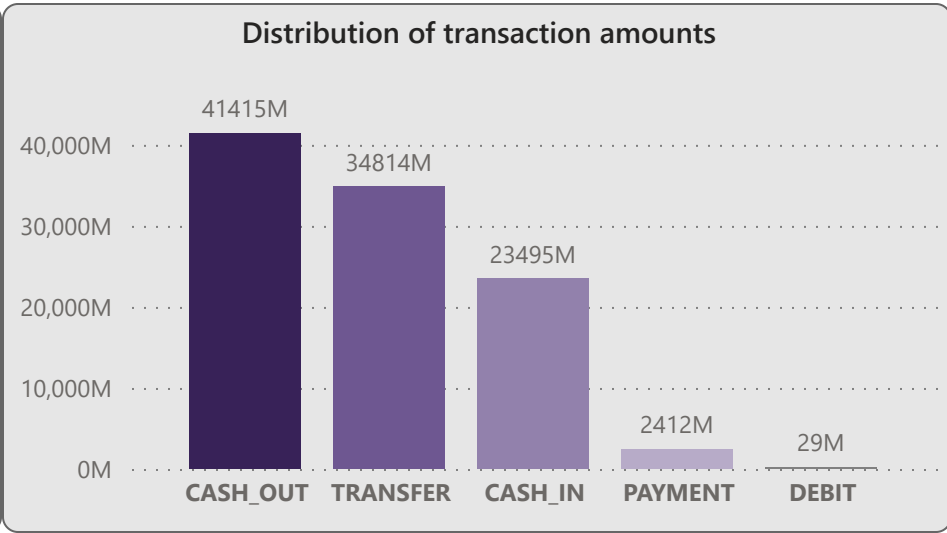


Anomaly Detection
in Credit Card
Transactions



AverageNormalTransactionAmount

161.5K

Total Credit Card Transactions

630.9K

Highest Fraud transaction amount

10.0M

Diff_bt看_high normal&fraud trans_amount

-3.6M

AveragefraudTransactionAmount

881.6K

Total fraud credit card transactions

383

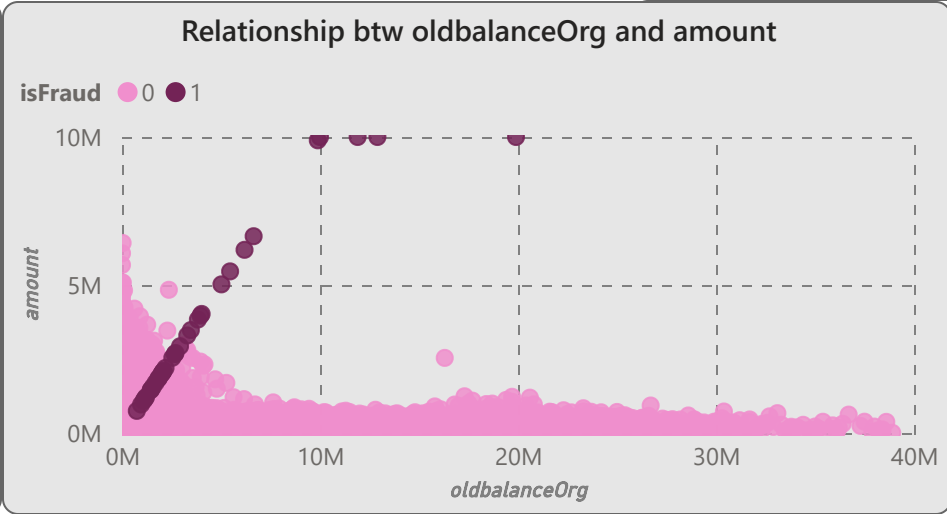
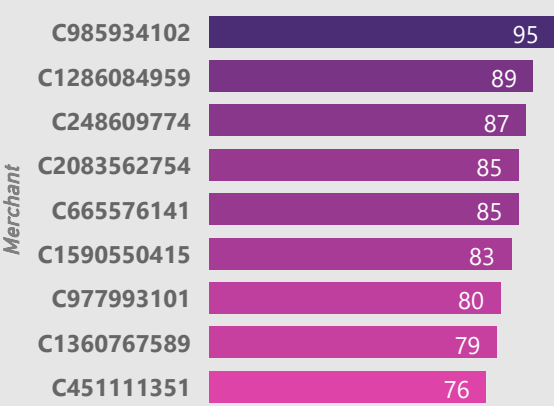
Highest normal transaction amount

6.4M

% of Fraudulent Transactions

0.061

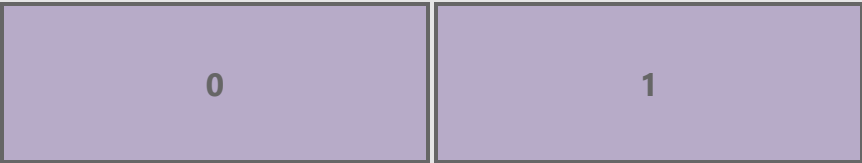
Top 10 Transaction Counts



Merchants with a high occurrence of fraudulent transactions

nameDest	Count of amount
C185805228	2
C200064275	2
C410033330	2

isfraud



Summary

- Upon analyzing credit card transactions, a significant number of fraudulent activities have been uncovered within the dataset.
- The total recorded transactions are **6,30,894** with **383** fraud transaction, which is **0.06%** of the total transactions.
- Transactions were categorized into five types: **cash in, cash out, debit, payment, and transfer**. Notably, fraudulent transactions were detected primarily within the '**transfer**' and '**cash out**' categories, with approximate values of **\$169M** and **\$168M**, respectively (Overall total fraud amount is **\$337M**). This highlights the need for increased attention to ensure the safety of these transaction types.
- The '**cash out**' type is the most frequently used, with **224,013** transactions totaling around **\$41 billion**. Conversely, the '**debit**' type is the least utilized, with only **4,769** transactions amounting to approximately **\$29M**.
- The line chart reveals a concentration of transactions within the range of 10 to 20 steps, accounting for the highest total transaction volume, approximately **\$7.3 billion**. Of this amount, a significant portion, totaling **\$3.3 billion**, falls into the 'cash out' category, representing a notably high-value subset.
- Three customers have committed fraud twice. Among them, '**c185805228**' stands out with the highest fraudulent amount of **\$1.1M**. This is an exceptionally large fraud amount for a single individual.

In conclusion, the analysis emphasizes the importance of staying alert and proactive in preventing fraud, especially in 'transfer' and 'cash out' transactions. It also underscores how understanding the distribution of transaction volumes, spotting repeat offenders, and having strong fraud detection systems are vital in protecting financial transactions.